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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,731	03/01/2002	Antoine Laures	677-27	6018
23117	7590	07/31/2006	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			PENG, FRED H	
			ART UNIT	PAPER NUMBER
			2633	

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/009,731

Applicant(s)

LAURES ET AL.

Examiner

fred peng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/17/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/17/01</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 10-14 are rejected under 35 U.S.C. 101 as non-statutory subject matter because the claimed invention digital signal is not one of the four patentable subject matters which are useful process, machine, manufacture, or composition of matter. Since digital signal is a non-tangible material, it is not a manufacture-able article like CD. It is also not a process matter since the process requires the steps of doing or building something. It is an abstract item which definitely is not considered as a machine. And the last thing, it is definitely is not the composition of matter.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country; more than one year prior to the date of application for patent in the United States.

Claims 1, 4-5, 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Frohbach (US 4,107,735).

Regarding Claim 1, Frohbach anticipates a method enabling a user device to identify a TV channel selected by a receiver/decoder comprising steps of (a) taking from within the decoder the digital channel-identifier, (b) detecting a channel change, (c) producing a digital data message including new channel change, (d) transmitting the message to the user device, (e) using the message within the user device for statistical purpose by "The channel on which a particular broadcast is being received is determined for each broadcast displayed by the television set 12, and such determination of the channel (a, b) is polled (c, d) for an evaluation or determination of the viewing habits of television viewers (e) in a

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multi-channel television broadcast reception area. In particular, a sensor 23 (decoder) is coupled to the remote control 15 for determining for each broadcast displayed by the television set 12 the channel (a, b) on which that broadcast is being received. The sensor 23 may preferably be included in the remote control. See Col 7 lines 9-19. In terms of the illustrated system, it is important to recognize that the disclosed alteration of the display of a television broadcast (b) in response to one or more received viewer reactions is a concomitant of the channel selection and viewer reaction interrogation or polling carried on by the equipment 36, etc. (See Col 9 lines 3-8). A centrally located interrogation unit 36 (user device) is connected via lines 37 to the channel determining device or sensor 23. See Col 7 lines 44-46. For polling the sensor 23 (d) as to the channel on which a broadcast displayed by the television set 12 is received and for also polling the reaction device 24 as to received viewer reactions to a displayed broadcast received from the polled channel. See Col 7 lines 46-51. It is desirable to provide a memory facility 39 which preferably is combined with or included in the remote control 15 in order to register or memorize the channel determination (c) effected by the sensor 23 and the viewer reactions received by the device 24. The interrogating unit 36 would then interrogate the memory 39 from time to time (See Col 7 lines 61-68)."

Regarding Claim4, Frohbach further anticipates from Claim1 that step (d) is implemented via a non-specific access port of the decoder by "By way of example, the leads 37 may be ..... or of another suitable signal transmission channel (See Col 11 lines 49-50)."

Regarding Claim5, Frohbach further anticipates access message including an access condition indicator by "In terms of the illustrated system, it is important to recognize that the disclosed alteration of the display of a television broadcast in response to one or more received viewer reactions is a concomitant of the channel selection and viewer reaction interrogation or polling carried on by the equipment 36, etc. (See Col 9 lines 3-8)."

Regarding Claim7, Frohbach further anticipates from Claim5 that a prefix is added to the message to identify the type of transition by "According to FIG. 5, the function of the selective interrogator dial 46 is performed by set or viewer identification codes 183 and unit and byte select detectors 184 cooperating with the output buffer 181. See Col 16 lines 51-55."

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Frohbach (US 4,107,735) as applied to claims 1, 4,5,7 above, and further in view of Kamada et al (US 2003/0056208 A1).

Regarding Claim2, Frohbach teaches all the limitations in Claim1 but does not teach steps a) to c) are implemented by software means internal to the decoder. Kamada does teach the steps of method can be implemented by software by "It is sufficient for the researcher to initially incorporate in the device a computer program for realizing the audience data collection method (e.g., in the form of a ROM in the device). See paragraph 14 lines 1-4". Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use software instead of hardware for cost saving and ease of upgrade.

Regarding Claim3, Frohbach teaches identification method of steps (a) to (c) while Kamada teaches the steps can be implemented by software. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to modify the general control software of the decoder to incorporate this identification software function to easily add more functionality to the decoder without extra hardware cost.

Claims 6, 10-12 rejected under 35 U.S.C. 103(a) as being unpatentable over Frohbach (US 4,107,735) as applied to claims 1, 4,5,7 above, and further in view of Sposato (US 5,781,228).

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Regarding Claim 6, Frohbach teaches about a power active-off change state of decoder by "According to FIGS. 2 and 3 (switch 29, FIG. 2), the centrally located interrogation unit also polls the or each television set as to its on/off condition (See Col 7 lines 52-54). Sposato further teaches stand-by states by "the set-top terminal 48 enters a stand-by mode to limit power consumption and awaits a command signal initiated by a user pressing a key or button on an input device 54, such as a remote control 80. In this stand-by mode, the set-top terminal can communicate with the head-end system and can respond to administrative requests transmitted by the head-end system 12. In the event that a user tunes to an interactive channel (typically by pressing the appropriate function key of the remote control), the set-top terminal 48 changes modes and enters the active mode. In the active mode, the set-top terminal 48 communicates with the head-end system 12 to process the instructions transmitted by the remote control. See Col 10 lines 59-67 and Col 11 lines 1-4". It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to modify the decoder with additional stand-by state to save the power while the decoder is non-interactive for a while.

Regarding Claim 10, Frohbach teaches a digital signal identifying the channel issued by a decoder to a user device by "In particular, a sensor 23 is coupled to the remote control 15 for determining for each broadcast displayed by the television set 12 the channel on which that broadcast is being received. The sensor 23 may preferably be included in the remote control (See Col 7 lines 15-19). A centrally located interrogation unit 36 is connected via lines 37 to the channel determining device or sensor 23 (See Col 7 lines 44-46). Such determination of the channel is polled for an evaluation or determination of the viewing habits of television viewers (See Col 7 lines 11-13). As indicated at 48, a signal identifying each polled viewer or television set is recorded in a track 49 in parallel to the corresponding channel and viewer reaction determinations in tracks 42 and 43 (See Col 8 lines 19-23)." Frohbach then teaches the signal characterized by a digital message comprising a change of channel by "a signal identifying ... in parallel to the corresponding channel and viewer reaction determination (See Col 8 lines 19-22)", further teaches a change of a access condition by "In terms of the illustrated system, it is important to recognize that the disclosed alteration of the display of a television broadcast in response to one or more received viewer reactions is a concomitant of the channel selection and viewer reaction interrogation or polling carried on

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by the equipment 36, etc. (see Col 9 lines 3-8)", a change of decoder active-off states by "the centrally located interrogation unit also polls the or each television set as to its on/off condition (See Col 7 lines 52-54)". Sposato further teaches decoder stand-by states by (See Col 10 lines 59-67). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to modify the digital signal carrying the message to include the stand-by state for power saving.

Regarding Claim 11, Frohbach further teaches a prefix in the message identifying the type of transition by "According to FIG. 5, the function of the selective interrogator dial 46 is performed by set or viewer identification codes 183 and unit and byte select detectors 184 cooperating with the output buffer 181. (See Col 16 lines 51-54)".

Regarding Claim 12, Frohbach further teaches the message comprising the newly selected channel by "In terms of the illustrated system, it is important to recognize that the disclosed alteration of the display of a television broadcast in response to one or more received viewer reactions is a concomitant of the channel selection and viewer reaction interrogation or polling carried on by the equipment 36, etc (See Col 9 lines 3-8)."

Claims 8, 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Frohbach (US 4,107,735) as applied to claims 1, 4,5,7 above, and further in view of Selfert et al (US 3,866,175).

Regarding Claim 8, Frohbach teaches the message comprising a reference for the subscriber, the reference to identify the decoder, time and date information and rating verification data transmitted over the network and received by the decoder by "According to FIG. 5, the function of the selective interrogator dial 46 is performed by set or viewer identification codes 183. ... The viewer identification codes 183 for the various blocks 175, 175', 175", etc. (See Col 16 lines 51-56). As indicated at 39 in FIG. 1, a memory may be combined with the multiplexer 76 in order to store viewer reactions and channel selections as a function of time for periodic polling by the central interrogating unit via lines 37 (See Col 11 lines 52-56). A display of the broadcast video program may be provided with a facility for displaying a number of pictorial representations corresponding to the predetermined number of different types of viewer reactions for

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individually indicating each viewer reaction type. Viewer reactions received through the registering facility may be displayed in the display of the broadcast video program according to reaction type through the corresponding pictorial representations (See Abstract lines 12-21)". Selfert further teaches a message number is incremented each time a new message is produced by "The sequence counter 53 allows the terminal to receive a poll or exchange message from the controller and to format a terminal response message to the controller message in an orderly and logical manner (See Col 6 lines 37-41)". It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to modify the message with sequence number to clearly identify each message for easy tracking purpose.

Regarding Claim 14, Frohbach further teaches the message comprising a reference for the subscriber, the reference to identify the decoder, time and date information and rating verification data transmitted over the network and received by the decoder by (See Col 16 lines 51-56, Col 11 lines 52-56, Abstract lines 12-21). Selfert further teaches a message number is incremented each time a new message is produced by (See Col 6 lines 37-41)". It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to modify the message with sequence number to clearly identify each message for tracking purpose.

Claims 9, 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Frohbach (US 4,107,735) and Sposato (US 5,781,228) as applied to claims 1, 4-7, 10-12 above, and further in view of Hill et al (US 6,334,219 B1).

Regarding Claim 9, Frohbach teaches the program channel in the channel identifier by "The channel on which a particular broadcast is being received is determined for each broadcast displayed by the television set 12, and such determination of the channel is polled for an evaluation or determination of the viewing habits of television viewers in a multi-channel television broadcast reception area (Col 7 lines 9-14)." Hill et al further teaches data encoding the digital multiplex and/or the originating upstream transport network by "Balance indicates that additional wavelengths could be utilized to add services, such as cable television, via digital multiplex to the network (See Col 1 lines 61-64)." It would have been



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prima facie obvious to one of ordinary skill in the art at the time the invention was made to modify the channel identification with the multiplexer and transport network info to clearly identify the source of the program channel.

Regarding Claim 13, Frohbach further teaches the channel identifier including program channel by (See Col 8 lines 19-23). Hill et al further teaches data encoding the digital multiplex and/or the originating upstream transport network by (See Col 1 lines 61-64). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to modify the channel identification with the multiplexer and transport network info to clearly identify the source of the program channel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Peng whose telephone number is (571)270-1147. The examiner can normally be reached on Monday-Friday 07:30-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shanon Foley can be reached on (571)272-0898. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Fred Peng

Patent Examiner



Shanon Foley

Supervisory Patent Examiner